Eastsign

Laminator
II.WARM
User Manual

Eastsign International Limited

Room 1818, 18/F., Shatin Galleria, 18-24 Shan Mei Street, Fotan, Shatin, N.T., Hong Kong

TEL: + 852 - 2117 0098

FAX: + 852 - 2117 0099

Website: www.eastsign.com

Email: info@eastsign.com

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I. Introduction

II.WARM is upgrade version of II.MULT due to high demand of entry level cold laminator with heat assist, auto stripping and collecting back paper. It is simple in structure, reasonable in price and user-friendly**.** This is working principle: the motor drives the upper and lower laminating roller. The roller for feeding cold lamination film is linked to that for collecting back paper. When the cold lamination film is pulled out, back paper is collected at the same time. Continuous laminating or longer picture laminated are possible due to additional feature of automatic stripping film and collecting back-paper which is driven by upper and lower laminating rollers. Operator focuses on monitoring the laminating result and collecting the media.

Heat Assist is the major feature of this machine. Silicon roller could be heated up to 60^0C or 140^0F to improve the laminating result.

Power rating of laminator is only 60W. It consumes less power. This machine supports two types of power supply - 220V/240V and 110V. Buyers must clarify the power supply before placing order. Also, they must check the voltage of machine and power supply when the machine arrives.

Speed can be adjusted freely on control panel. This machine is equipped with foot-pedal. You can operate the machine by manual-control switch or foot-pedal switch.

There is emergency button. If there is accident, the machine would stop immediately by pressing the button.

As a result, the feedback from market is very good and most users are satisfied. Since it was launched, it is still the most popular model at present.

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II. Specification

Model	BU-1600II.WARM
Roller Width	1640mm or 64”
Laminating Speed	0 – 6 m/min or 19 feet/min
Nip Opening	35mm or 1.3”
Laminating Temperature	0 – 60^0C or 0 – 140^0F
Motor Power	60W
Heating Power	1500W
Power Supply	Single Phase, 110V/220V/240V
Roller Diameter	120mm or 4.7”
Machine Size	1880mm x 540mm x 1330mm 74” x 21” x 52”
Machine Weight	220kg or 484lb
Packing Size – Wooden Crate	2050mm x 630mm x 710mm 81” x 25” x 28”
Gross Weight	250kg or 550lb

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III. Machine Structure

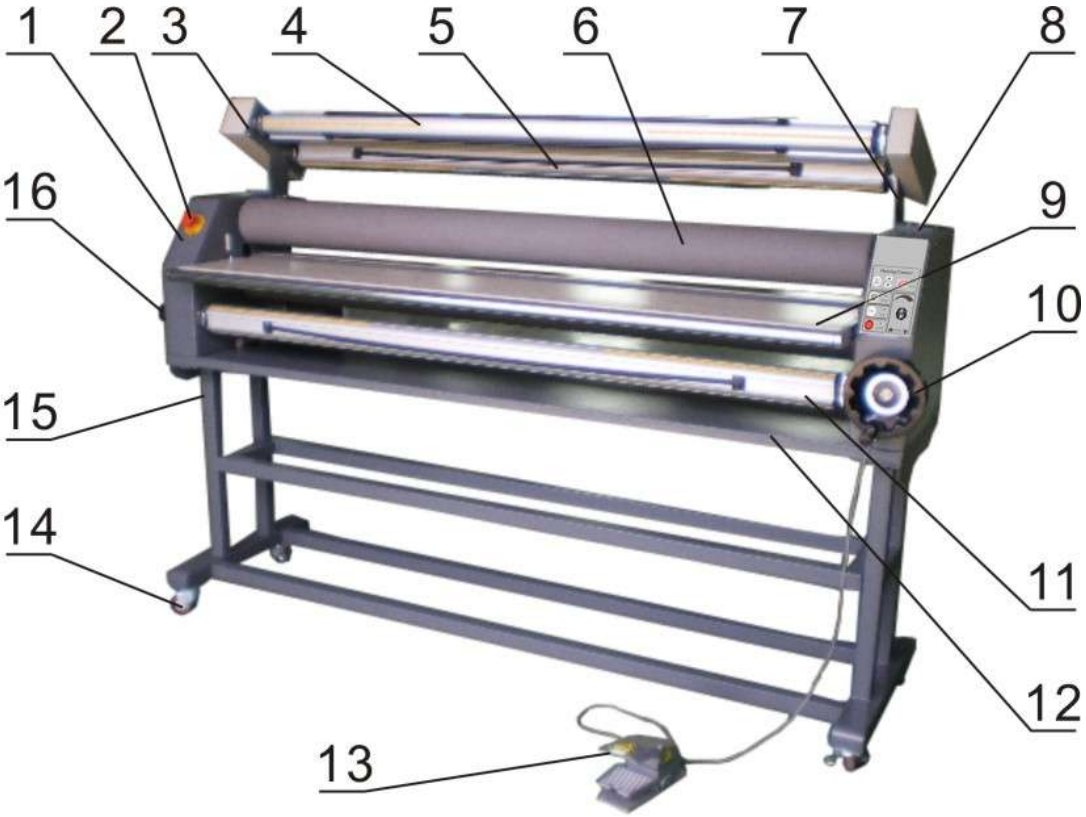

Fig. 1

1. Left cabinet
2. Emergency stop
3. Left bracket plate
4. Liner paper roll
5. Film mandrel
6. roller
7. Right bracket plate
8. Right cabinet
9. Front working table
10. Lifting Crank
11. Feeding roll for media
12. Base plate
13. Pedal switch
14. Caster
15. Supporting frame
16. Tension control knob

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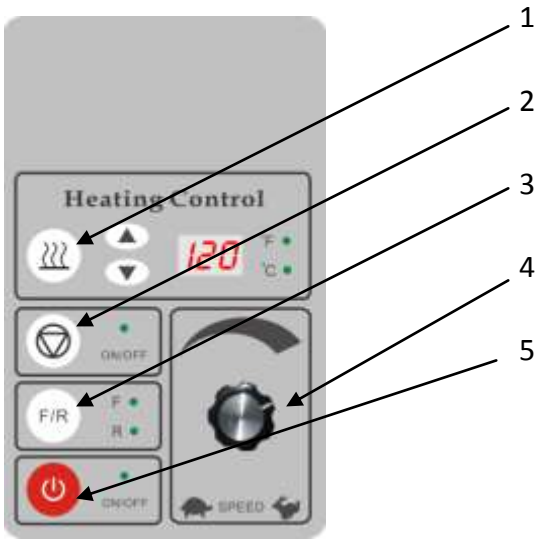
1. Fuse
2. Power plug-in
3. Pedal switch plug-in

Fig. 2



1. Heating Switch
   If you switch between Celsius and Fahrenheit, press this button for 3 seconds. Press this button again until it shows “D-4”. Select “0” for Celsius and “1” for Fahrenheit
2. Motor Switch
3. Forward / backward laminating
4. Speed control
5. Power switch

Fig.3 II.WARM control panel

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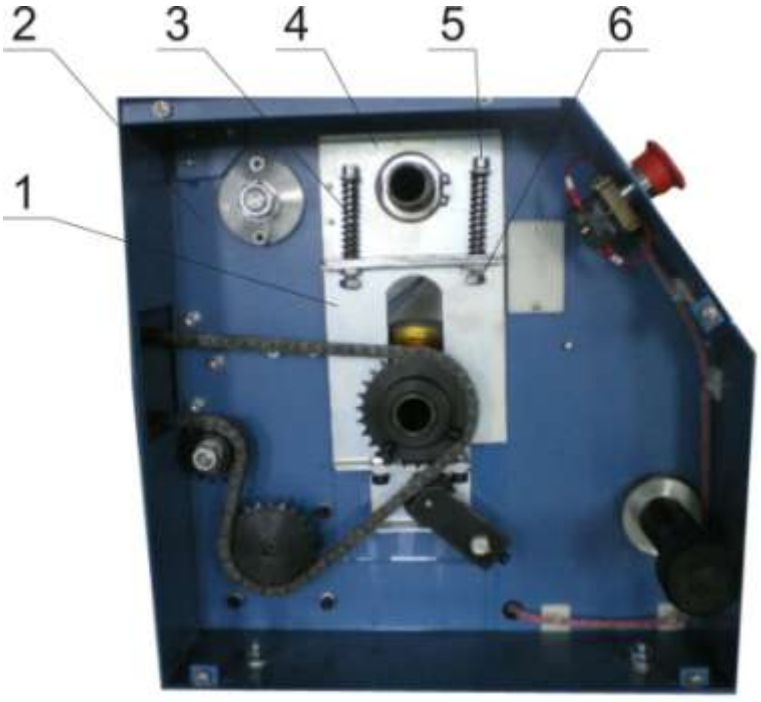
IV. Installation and Operation Method

1. Move the machine to final location; make sure that there is no damage and all the parts and accessories are installed.
2. Connect the machine to the mains. Check the mains values before connecting.
3. Install the film mandrel and left and right cabinet of print roll (fasten the screws). Make sure the ends are symmetrical. Press the start button and the rollers are rotating. Make sure the machine run normally. Then try lamination and check the effect and quality of lamination.
4. Film mandrel and liner paper roller can be installed or removed quickly. Three rubber strips which can be rolled are mounted on the aluminum mandrel to lock the core of the film roll. Tension control knob on one end of the liner paper roller can regulate friction to synchronize the same speed of main rollers and liner paper roller to ensure the laminating quality. Turn the knob clockwise, damping increases. While turn the knob counterclockwise, the tension decreases.
5. The crank on the right cabinet is for lift or drop the roller. Turn it clockwise and the roller is lifted. Turn it counterclockwise and the roller drops. When turn it counterclockwise and the top roller reaches the bottom roller, the turning force is significantly reduced. This phenomenon is called *idle stroke*. When the weight of the top roller is well-distributed on the bottom roller, the laminating can be started. If you continue to turn the knob counterclockwise, the pressure can be increased.

Adjusting the parallelism and pressure of the main rollers:



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1. Middle bracket of compression on the left
2. Left cabinet
3. Compression spring
4. Upper compression bracket
5. Compression bolt
6. Compression nut

The alignment of the main rollers is the crucial factor to ensure the balance of pressure and further affect the quality of lamination and the off-tracking of image. The main rollers are well-aligned before the shipment from factory. While violent vibration in transportation or long-time operation may lead to the misalignment of the main rollers. You can readjust the rollers with the following measures.

1. Reset the pressure of the main rollers

When the pressure of the main rollers is imbalanced, the image may be mounted off track or show up wrinkles. Adjust the pressure with the following steps.

1) Observe and record the off-tracking direction of the image, turn off the power of the machine and remove the board of the wheel cabinet.

Caution: comparing with the right cabinet, there are less parts on the left cabinet. Please remove the left cabinet first to avoid excessive work or damage of other parts.

As the figure shown above, the middle bracket of the left compression and the upper compression bracket are connected by two bolts. Each bolt has a spring and two screws (see the figure above). One screw is welded with the compression plate and the other below is moveable clamp nut.

2) If the image is off-tracking on the left right of the machine, it indicates the pressure on the left side is higher than that on the right side. Adjust the screw bolt to reduce the deflection of the spring on it. The range of adjustment of both bolts shall be as the same as possible.

Note: You can use a ruler to measure the height of the two bolts and make sure they are at the same level in the adjustment.

3) If the image is off-tracking on the right side, it indicates that the pressure on the level side is lower than that on the right side. Increase the deflection of the spring on the two bolts then. The range of adjustment depends on the range of off-track of image.

Caution: When the deflection of spring is adjusted, please turn the pressure of the

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machine to its maximum level to ensure there is margin for the deflection. Or else the spring may be damaged. When the left side does not have margin, remove the right side board to adjust the screw bolt on this side.

4) Tighten the nuts after adjustment.

5) Install the left side board on the machine.

Adjustment principle: if the image is off-tracking to the left side, the pressure of the left side is higher than the right side. Loosen the spring on the left side to reduce its deflection.

Align the main rollers

Set the space between the main rollers to 1-2mm. Observe the evenness of space by eyes (or measured by a feeler). If it is not even, record the side with small space. Then set the main rollers to idle stroke, cut the main power, open the side board of the wheel carbine, as the figure shows below, screw out the bolt, increase or reduce the number of the insert plates between the lifting plate and the compression plate (the insert plates are supplied as the accessory of the machine) to align the main rollers and then re-install the side board.

Caution: The main rollers are aligned and fixed before the shipment from the factory. When the image is off-tracking or other problems occur in lamination, please check the pressure balance of the main rollers first. Only after confirming the problems are caused by the misalignment of the main rollers, the insert plates can be increased or reduced. Reset the pressure of the main rollers after the adjustment.

Lamination process:

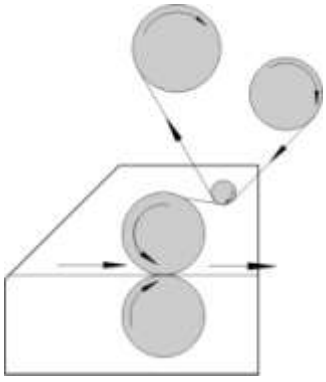

Figure 4

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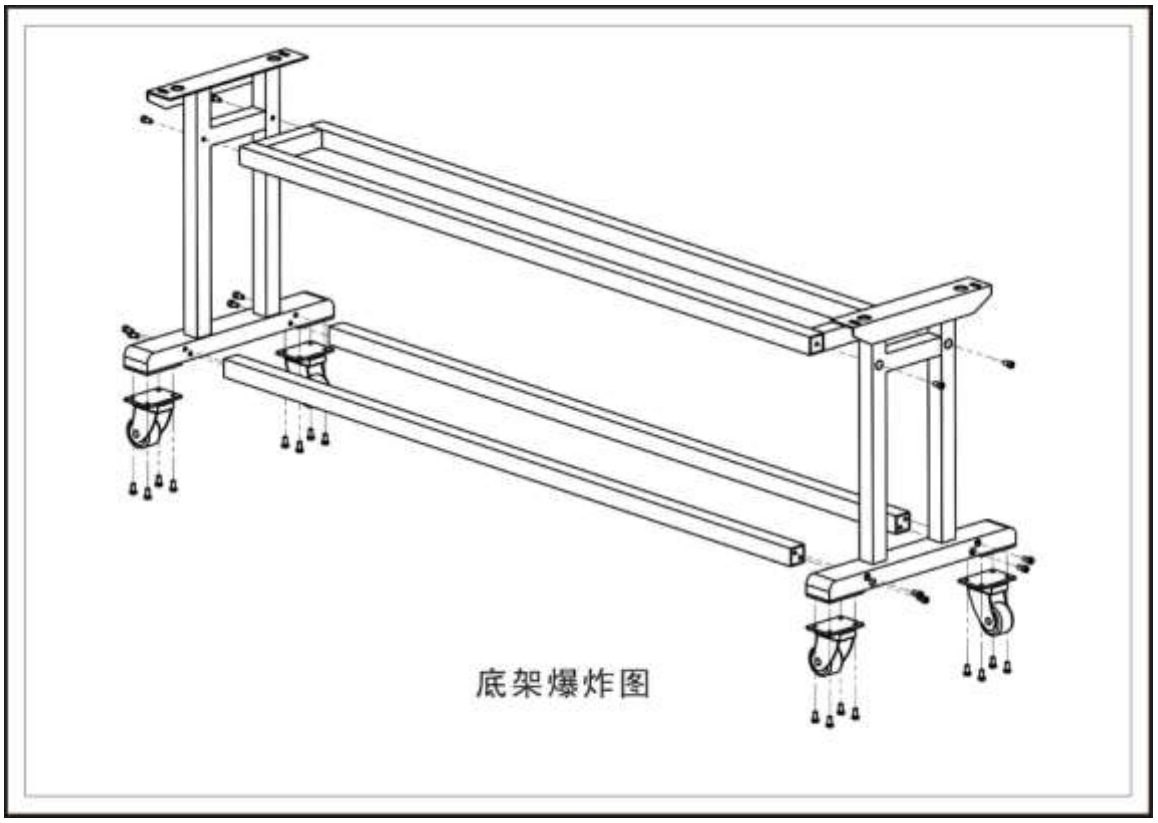
VI. Installation of Supporting Frame



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V. Safety Cautions

1. Read this manual carefully before starting the machine. Familiarize yourself thoroughly with the structure, functioning and operation of this machine. Observe all the warning symbols on the machine to prevent accidents.

2. The mains supply must match the type indicated on the machine identification label. And reliable ground connection shall be ensured.

3. This machine does not have optical safety device. Do not approach the rolling rollers to prevent injury.

4. Lift the roller after operation to prevent deformation after long-time pressure and cut the power supply.

5. Keep distance with the rollers when cut the films or images to prevent damage to the rollers by the edge tools. You can swipe the glue on the rollers by cotton cloth with alcohol. You may not use organic solvent to swipe the roller or wash the roller by water, which may lead to damage of the rubber or short circuit.

6. Install the machine in a dry and well ventilated environment. Make sure the ground is free of water or moisture. Keep the machine from any inflammable and explosive objects to prevent fire accident.

7. Check the electricity leaky of the machine and power lines regularly. If there is any abnormal phenomenon in operation, please check and eliminate problem in time to prevent further damage.

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VI. Warranty

1) Fill in the warranty form in Eastsign website when you receive the machine.
   http://www.eastsign.com/warranty_form.php
2) Standard warranty period of this machine is one year. Material and service fee will be charged after this period.
3) Users are responsible for damages by improper usage.

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